5.1.5 Properties of Cool Roofing Materials (1)

	Solar Reflectance (2)	Infrared Emittance (3)
Asphalt Shingles		
Shasta White	0.26	0.91
Generic White	0.25	0.91
Generic Grey	0.22	0.91
Light Brown	0.19	0.91
Medium Brown	0.12	0.91
Generic Black	0.05	0.91
White Coatings		
White Coating (1 coat, 8 mil)	0.80	0.91
White Coating (2 coats, 20 mil)	0.85	0.91
Aluminum Coatings		
Aluminum	0.61	0.25
Fibered on Black	0.40	0.56
Membranes		
Gray EPDM (4)	0.23	0.87
White EPDM (4)	0.69	0.87
T-EPDM (4)	0.81	0.92
Light Gravel on Built-Up Roof	0.34	0.90
Metal Roof		
New, Bare Galvanized Steel	0.61	0.04
Tiles		
Red Clay	0.33	0.90
White Concrete	0.73	0.90
Fiber Cement, Pewter Gray	0.25	0.90

Note(s): 1) A good cool-roofing material has high solar reflectance and high infrared emittance. 2) Solar Relectance is the percentage of incident solar radiation that is reflected by the material. 3) A number between 0 and 1 that describes the ability of a material to shed heat. The lower the value, the more heat the material retains. 4) Ethylene propylene diene monomer rubber material.

Source(s): Lawernce Berkley National Laboratory, Cool Roofing Materials Database, http://eetd.lbl.gov/coolroofs/.